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Information Technology, Attunement, and the Extended Self: A Monologue on the Microsociology of Information Technology

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Abstract

I propose a microsociology of IT. It is a study of how a person interacts with IT, and how such an interaction may affect and mediate the social bonds and solidarity of people. I raise several issues in developing the microsociology. I identify different modes, namely the object mode and the medium mode, in which IT comes into touch with a person's life. I also note the absence of the emotive aspect of a person-IT interaction in developing the microsociology. I propose a model of a person-IT interaction, an attunement model, to explain a micro level interaction between a person and the technology. I also propose that the attuned interaction between a person and IT result in an extended self and that such an extended self fundamentally transform the social bonds and solidarity of the human society.

A Beginning Note

In this monologue, I address an issue of the social implication of IT. I ask if and how IT affects and mediates the social bonds and solidarity of people. To answer them, I propose to develop a microsociology of IT. A microsociology is an explication of the social structure from a micro perspective, namely from an individual, interpersonal interaction. I suggest that each individual person-IT interaction accumulate to form a general social order of the society.

The Modes of Person-IT Interaction

I begin first of all by asking how IT is configured in a person's everyday life. In which form does IT come into a person's life, and what role does it play in it? I identify two different ways IT may come into a person's life. On the one hand, IT may come in as an object of interaction. It is something a person personally interacts with and forms a certain cognitive, affective relationship with. On the other hand, IT may come in as a medium of interaction. It is something a person uses to interact and communicate with other people.

I label the different ways in which IT comes in touch with a person's life as the mode of a person-IT interaction. I label the former as the *object* mode and the latter the *medium* mode. In the *object* mode, IT is itself an object of interaction. A person interacts with it, i.e., uses, operates, and manipulates the technology, to perform a particular task. In the *medium* mode, IT, on the other hand, is a medium of interaction. A person interacts not with IT itself but with other people, and the technology comes in only as a medium of interaction.

The sociology of IT should address both modes of interaction. Most previous research on people-IT interaction has focused upon the object mode of interaction. IT as an object of interaction is considered to be an independent object, reified to a certain degree, with some objective characteristics which people interact with. Fred Davis' perceived usefulness and ease of use quality of IT is a representative example.

The object and medium modes of person-IT interaction also represent the micro and macro level of analysis for the sociology of IT. The micro level is the level of individuals, how a person interacts with and is influenced by the technology. The macro level, on the other hand, is the level of collectives, how people form and develop social bonds and solidarity to produce social structure. The micro and macro levels of analysis, however, are not separate. The macro level of the theory should be constructed not in separation from the micro level, but should be anchored upon and extended from the micro level. How the social organization takes the current form in lieu of the technology cannot and should not be discussed in separation from how each individual person interacts with the technology.

Cognitive and Emotive Aspects of Interaction

How much does IS research address the emotive aspect of people interacting with the technology? Scheff argues that it is emotion that compels and constrains behavior. The Fred Davis' two constructs for the adoption of IT, the perceived usefulness and the perceived ease of use, for instance, may have corresponding emotions, which may constrain the technology adoption behavior and thus prove to be better predictors of the behavior.

All talks of IT, however, are completely devoid of the emotive aspect of person-IT interaction. The emotive aspect of the interaction has either been explained as an individual difference phenomenon or been treated only as some psychic anomalies, such as a techno-phobia

symptom. On the contrary, the emotive aspect is a legitimate, undismissable part of the person-IT interaction. An interaction with IT is really a personal encounter hovering over cognitive and intellectual as well as emotional plains. People develop liking and disliking of the technology, just like they do when they associate with other people. Hence it is more than a mere usage relationship as most IS literature suggests. And we can never dissociate the cognitive and emotive aspects of person-IT interaction.

The Realms of Inquiry to trace the Social Implication of IT

The aforementioned modes and aspects of a person-IT interaction suggest four realms of inquiry in which to trace the social implication of IT. Figure 1 illustrates them. Realm I is where a person interacts with IT on a cognitive basis. Using IT for task performance falls onto this realm. Realm II is an interaction with IT on an emotive basis. A person, say, develops liking and disliking of the technology. Realm III is where a person uses IT as a communication medium, but only on a cognitive basis. Realm IV is where the communication spans over the emotive plane as well.

	IT as an Object of Interaction	IT as a Medium of Interaction
Interaction in a Cognitive Plane	I	III
Interaction in an Emotive Plane	II	IV

Figure 1: The realms of inquiry

Attunement and the Extended Self

As the person-IT interaction involves a cognitive as well as emotive encounter, an interaction with IT is not a mere attainment or appropriation of the structures of technology, as the adaptive structuration theorists suggest (DeSanctis and Scott Poole, 1994). Nor is it a mere acceptance or rejection of the technology as the implementation research suggests. It is a complex cognitive as well as affective process, with all the footages of cognition and affection we find in interpersonal interactions such as frustration, liking and disliking, and rather occasional appreciation.

Attunement is a concept necessary for investigating the Person-IT interaction. It refers to the process through which interactants achieve (or fail to achieve) joint attention and feeling (Scheffe, 1990). IT, in fulfilling its agency role, is becoming more complex and thus is very imposing and demanding in the person's attunement effort. It requires greater efforts for people both cognitively and emotionally to be attuned with the technology.

Attunement with the technology affects the concept of self. If properly attuned, IT expands a person's self. It contributes to and immerses into the person's extended self. It may dramatically expand the realm of our existence, both cognitively and emotively, just as we do with a TV. In fact, IT may be just an extension, or a closing, of what TV has started a few decades ago. IT unlimitedly expands the time-space paths of people's life.

The Extended Self and the Social Bonds

What is it that ties people together into a social bond? And how is IT affecting it? At the base of a social bond we find dependence on others, a fear of refusal, which lead to avoidance of antagonizing others. There always is this affective submission, both on the subordinate as well as superordinate parts, to each other. This affective submission stems from incapacity. Their incapacity to do the things themselves, and the often painful realization that, to have things done, they have no choice but to rely on those they interact with, is what ties people together.

IT, however, by enhancing individual rationality and creating extended self, may reduce the actual occasion or need for interaction with others. It allows people to do things that they may not have been able to do themselves but had to ask others to do for them.

The empowering of individuals, however, carries a more serious implication with it in that it changes the affective contours of the relationships between people. As people become empowered and less dependent on others, they also become less submissive to others. The relationships, from an affective standpoint, become more balanced. This, however, begets a stronger form of individualism - individualism based upon arrogance, unwillingness to acknowledge one's weaknesses, disregard for others. The remaining interactions among people are more purely task filled, with less affective content.

An Ending Note

In modern industrial societies, solidarity was based not on likemindedness but on the division of labor. The division of labor is a role-based concept, irrespective of persons. This is Durkheim's organic solidarity.

IT, through the extended self, is replacing the traditional roles and divisions of labor with newly created, higher order ones. As IT reduces the instances of face-to-face encounters, the basic foundation of human interaction, namely the pride and shame, is significantly altered. Indeed, the non-face interaction mode frees the

interactants from the fear of embarrassment, allowing them to be more free-spirited and out-going.

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